

Applicant(s): Pulst et al.
Serial No.: 08/727,084
Filed: October 8, 1996
For: NUCLEIC ACID ENCODING SPINOCEREBELLAR ATAXIA-2 AND PRODUCTS RELATED THERETO
Preliminary Amendment

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45. (New) The method of Claim 44 wherein individuals at risk for developing spinocerebellar ataxia type 2 have at least about 37 repeats in the CAG repeat region.

46. (New) The method of Claim 44 wherein the analyzing step comprises the steps of:
performing a polymerase chain reaction with oligonucleotide primers capable of amplifying the CAG repeat region located within the spinocerebellar ataxia type 1 gene;
and
detecting amplified DNA fragments containing the CAG repeat region.

47. (New) The method of Claim 46 comprising the additional step of sequencing the amplified DNA fragments.

48. (New) The method of Claim 44 wherein an individual not at risk for developing spinocerebellar ataxia type 1 has less than about 23 CAG repeats.

49. (New) A DNA fragment produced by the method of Claim 46 wherein the DNA fragment contains a CAG repeat regions and wherein the DNA fragment specifically hybridizes to a spinocerebellar ataxia type 2 gene.

50. (New) The method of Claim 46 wherein one oligonucleotide primer is selected from the SCA2 coding portion of nucleotides 163-657 from SEQ ID NO:2 and wherein another oligonucleotide primer is selected from the SCA2 coding portion of nucleotides 724-4089 from SEQ ID NO:2.

51. (New) The method of Claim 50 wherein the oligonucleotide primers are SCA2-A and SCA2-B.

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52. (New) An isolated DNA fragment having a sequence comprising bases 631-648 (SCA2-A) of SEQ ID NO:2 from a spinocerebellar ataxia type 2 gene and a CAG repeat region.

53. (New) An isolated DNA fragment of Claim 52 wherein there are less than about 23 CAG repeats in the CAG repeat region.

54. (New) An isolated DNA fragment of Claim 53 wherein there are at least about 35 CAG repeats in the CAG repeat region.

REMARKS

Kindly cancel claims 16-23, 24-26, 27-30, 31-36, 38-39 and 41-42 without prejudice to future prosecution on these claims. New claims 44-54 have been added and follow from Applicants' comments in the response to restriction requirement of August 19, 1997. Support for Claim 44 is found throughout the specification such as, for example, at page 34, beginning at line 1 and at page 34, beginning at line 22. Support for "35 repeats" is found, for example, at page 31, line 8. Support for "37 repeats" is found, for example, at page 34, line 12. Support for Claim 46 is found throughout the specification and in one example at page 33, including lines 32 -37. Support for Claim 47 is found, for example at page 46, line 30. Support for Claim 48 is found at page 7, line 31. Support for the phrase "specifically hybridizes" is provided at page 20 beginning at line 34. Support for Claim 50 can be found at page 34, line 18. Primers SCA2-A and SCA2-B are disclosed at page 43, line 18 and in Figure 2.

Amendments have been made to the specification to correct typographical errors. The currently pending claims are Claims 1-15, 37, 40 and 44-54. Applicants request that the Examiner contact Applicants' Representative at the telephone number provided below to discuss this case at her convenience if she has any questions or concerns. Entry of the foregoing Preliminary Amendment and favorable consideration of the present application are respectfully requested.